

Figure 1

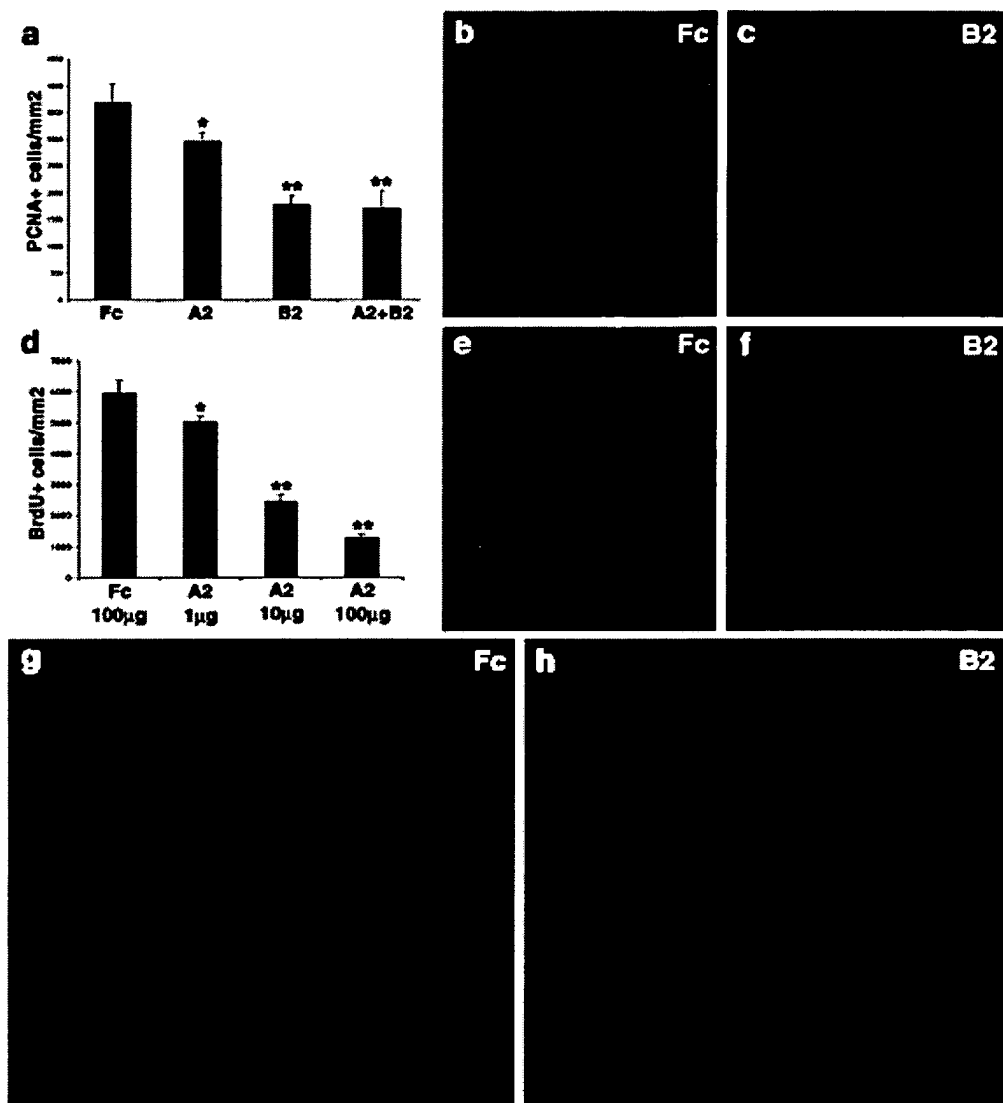


Figure 2

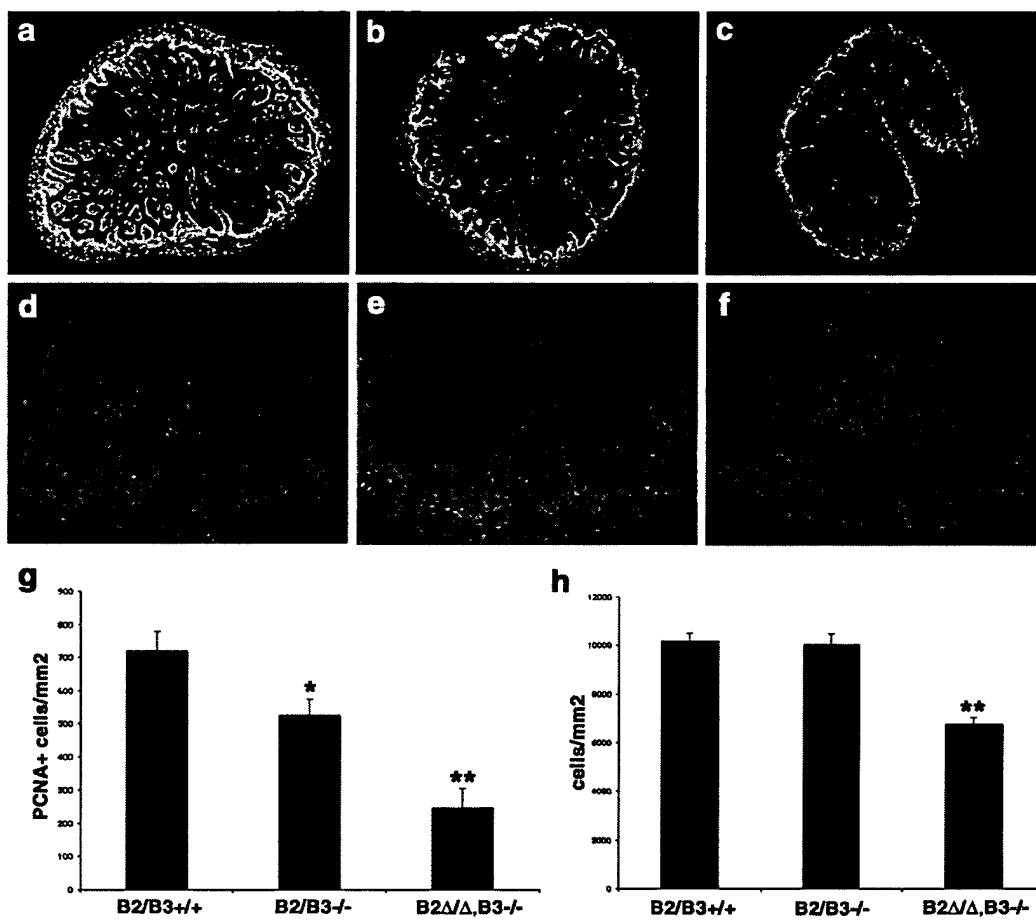


Fig. 3

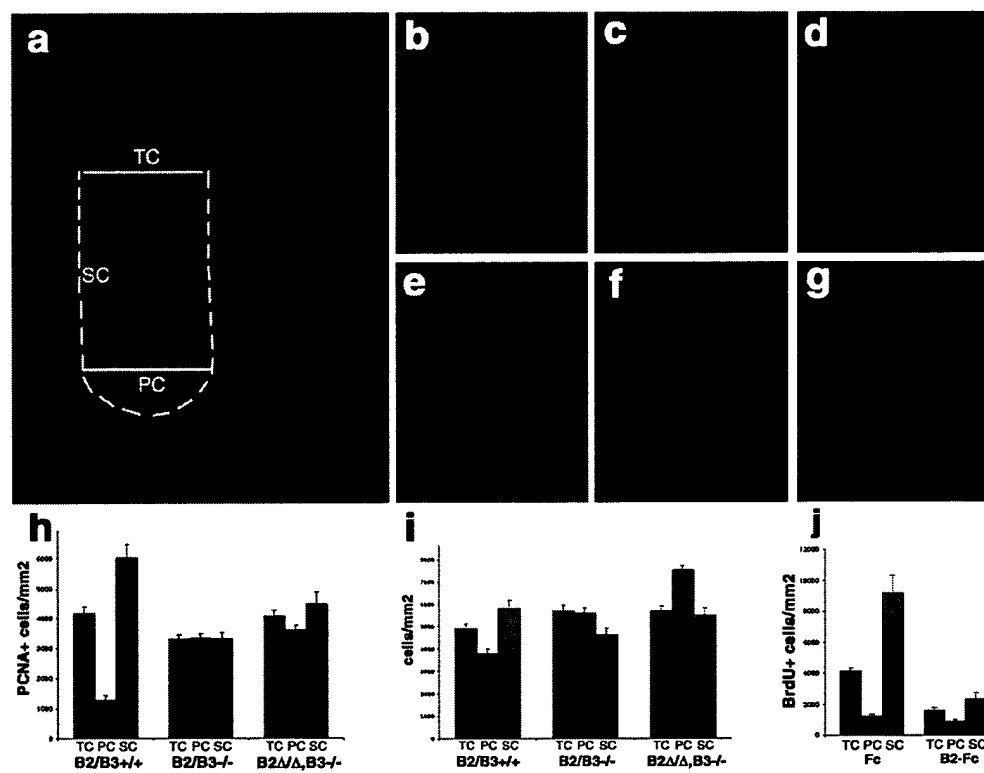


Fig. 4

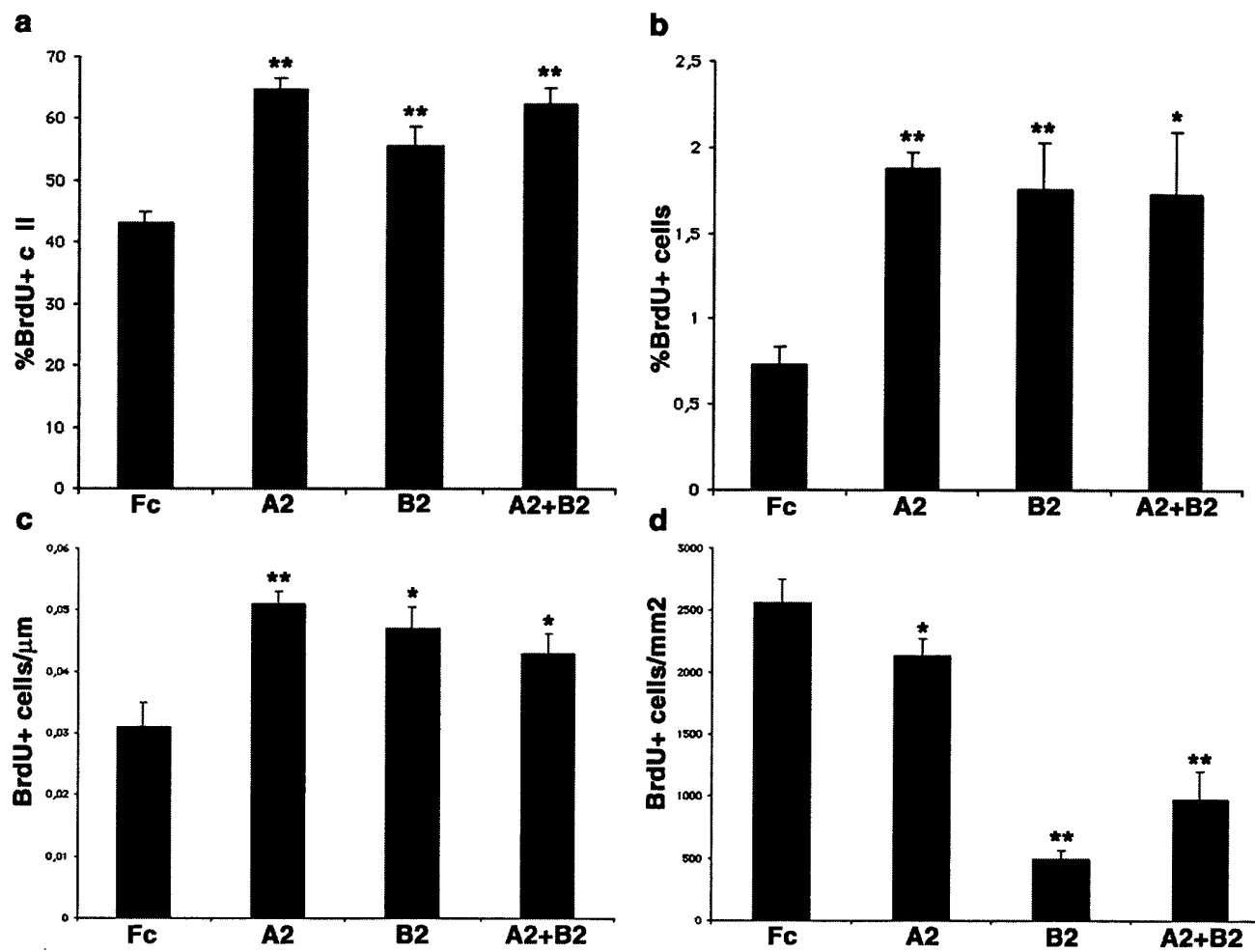


Fig.5

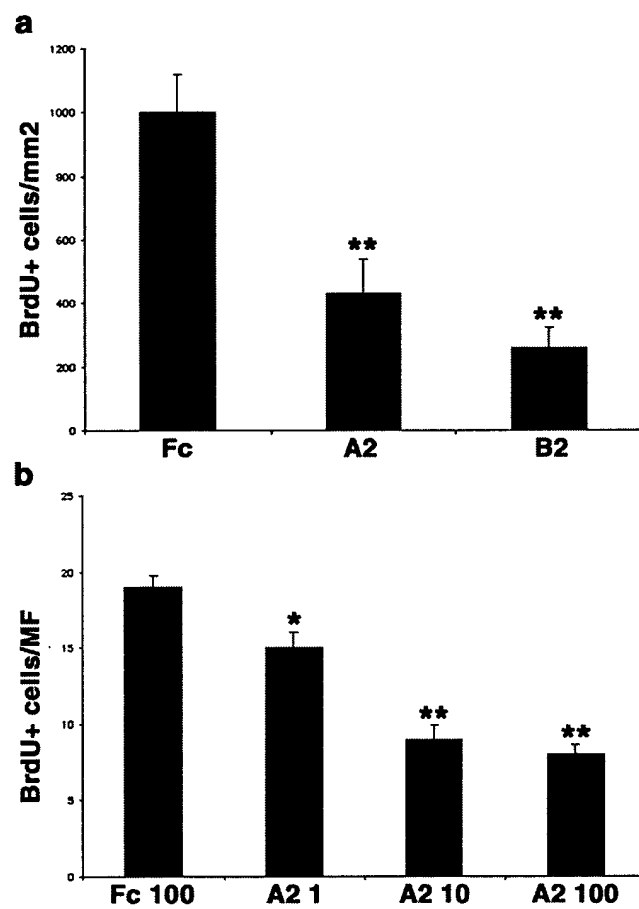


Fig.6

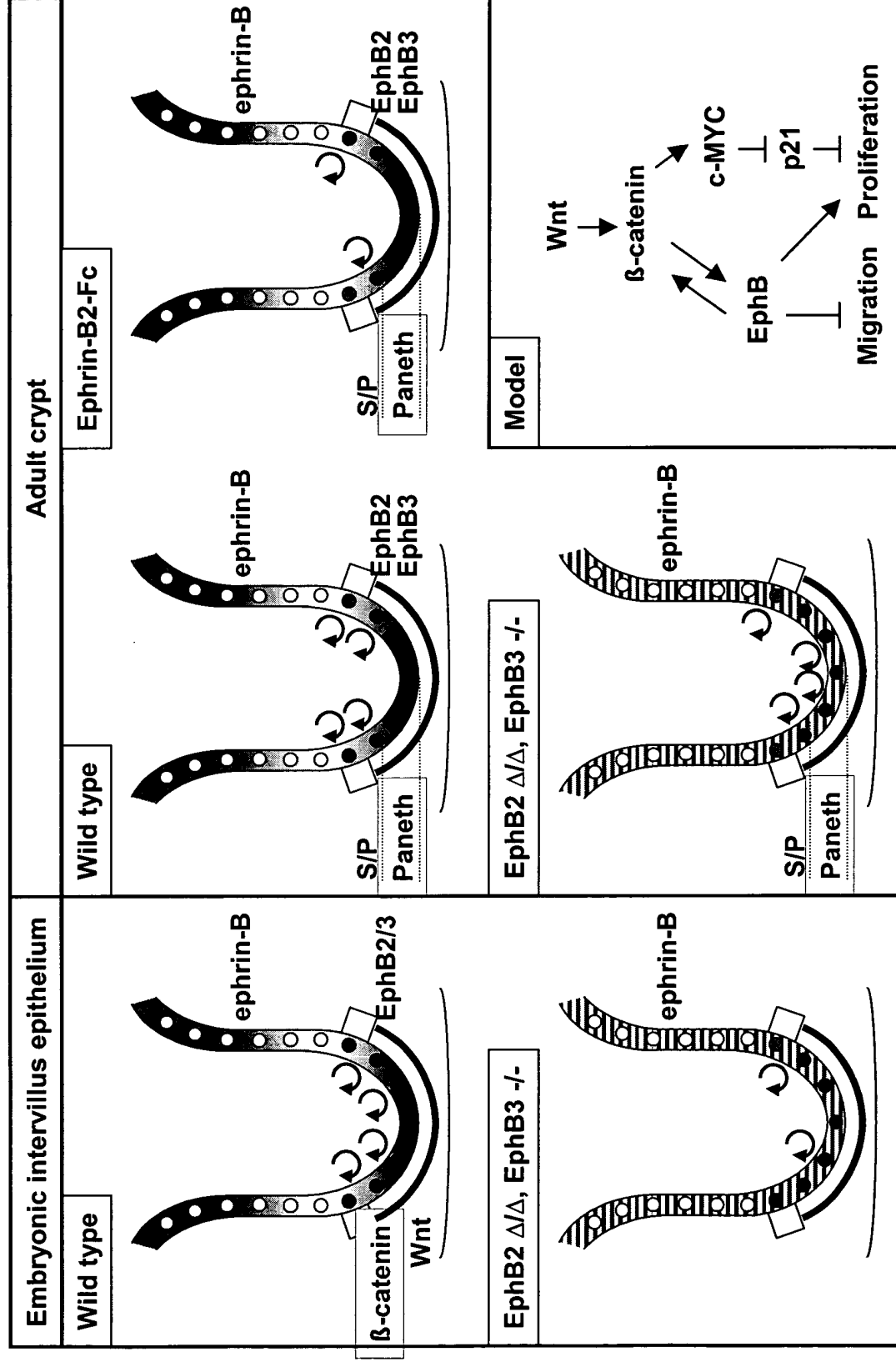


Figure 7

FIG. 8

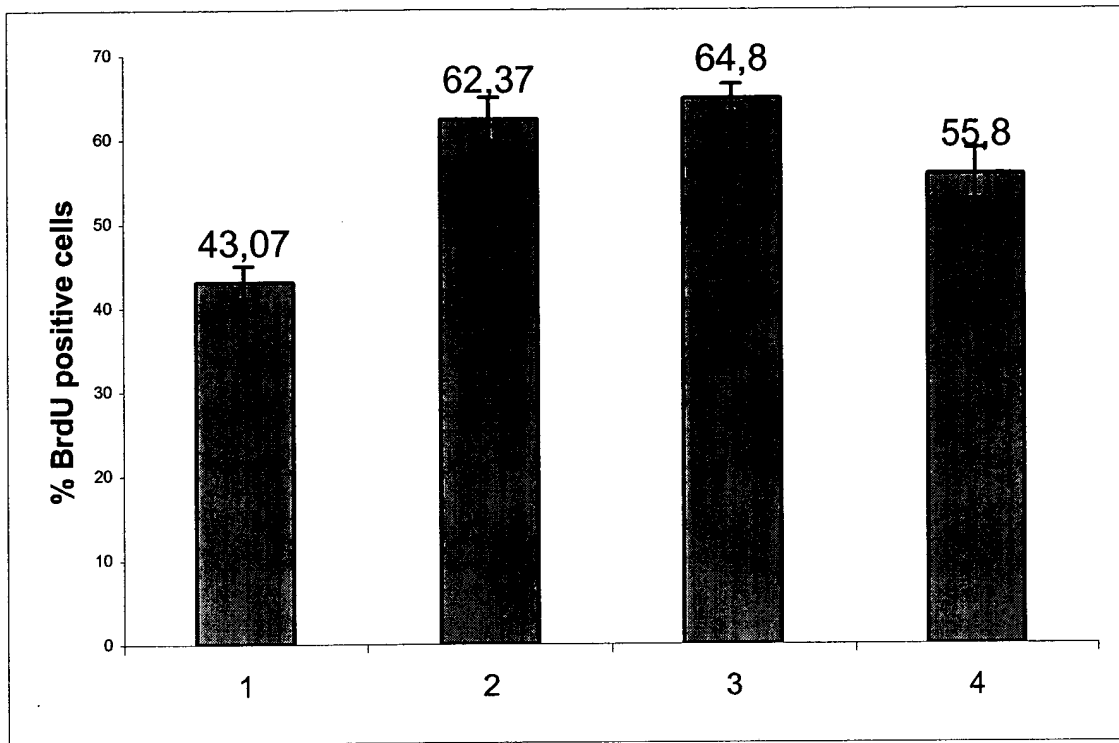


FIG. 9

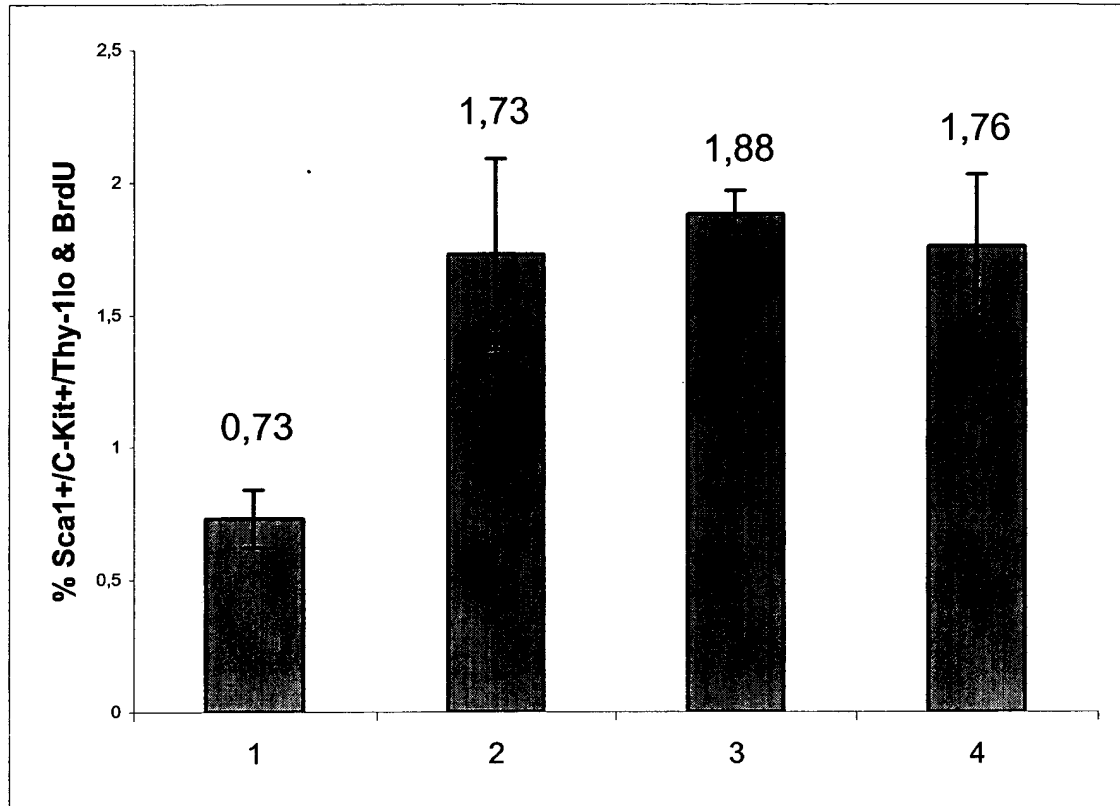


FIG. 10

Ephrin A1 [Mus musculus]
ACCESSION NP_034237

Region 17..153

```

1 meflwapllg lccslaaadr hivfnwnssnp kfreedytvh vqlndyldii cphyeddsva
61 daamerytly mvehqeyvac qpqskdqvrw ncnrpsakhg peklsvkfqr ftpfilgkef
121 keghsyyyis kpiyhqesqc lklkvtvngk ithnpqahvn pqekrlqadd pevqvlhsig
181 ysaaprllfpl vwavl11lpl1 llqsq

```

Ephrin A2 [Mus musculus]
ACCESSION AAH48697

Region 30..170

```

1 mapaqrp1lp l11111plra rnedparana dryavywnrs nprfqvsavg dgggytvevs
61 indyldiycp hygaplppae rmeriyilmv ngeghascdh rrggfkwrwc nrpaapggpl
121 kfsekfq1ft pfs1gfe1rp gheyyyisat ppnlvd1p1l r1kv1vrptn etlyeapepi
181 ftsnsscs1g1 ggchlflttv pvlwsl1g1s

```

Ephrin A3 [Mus musculus].
ACCESSION XP_204001

Region 31..163

```

1 maaapl1111 l1vpvp11p1 laqgpggalg nrhavywnss nqhlrregyt vqvnvndyld
61 iycphynssg pgggaeqyvl ymvnlsgyrt cnasqgskrw ecnrqhashs pikfsekfqr
121 ysafslgyef hagqeyyyis tpthnlhwkc lrmkvfvcca stshsgekp1 pt1p1qftmgp
181 nvkinvledf egenpqvpk1 eksisgtspk rehlplavgi afflmt1las

```

Ephrin-A4 Mus musculus (house mouse)
ACCESSION O08542

Variant 1..4 MRL1 -> M1L1RLGL1YPPTRPPAPPGLV
Region 26..206

```

1 mrl1p11rtv lwaallgsrl pgcsslrhpi ywnssnpr1l rgdavel1gf ndyldifcph
61 yespgppegp etfaly1v1d1w sg1eactaeg anafqrwn1s mpfapf1pvr fsek1qrytp
121 fplgfe1f1pg etyyyisvpt pespg1rcl1l qvsv1ckesg sshesahpvg spgesgtsgw
181 rgghaps1lc l111111p1l r11rv1

```

Ephrin-A5 precursor Mus musculus (house mouse)
ACCESSION O08543

Region 21..228

```

1 mlhvem1t1l flvlwmcv1s qdpgskv1ad ryavywnssn prfqr1gdyhi dvcindyldv
61 fcphyed1vp edkteryv1y mvnfdgysac dh1skgfk1rw ecnrph1spng plkfsek1ql
121 ftpfslg1f1e1 rpgreyfy1s saipdngr1s clklkvf1vrp tns1cmkt1g1v h1drvfdvndk
181 venslepadd tvhesaep1sr gena1qtp1ri psr1lla11lf l1am11t1l

```

FIG. 11

Ephrin B1 [Mus musculus].
ACCESSION AAH21656

Region amino acids 29-166

```
1 marpgqrwls kwlvamvlt lcrlatplak nlepvswwsl npkfllsgkgl viypkigdkl
61 diicpraeag rpyeyklyl vrpeqaaacs tvldpnlvt cnkphqeirf tikfgefspn
121 ymglefkkylh dytitstns sleglenreg gvcrttrmki vmkvgqdpna vtpeqlttsr
181 pskesdntvk tatqapgrgs qgdsdgkhet vnqeesgpg agggsgdsd sffnskvalf
241 aavgagcvif lliifltvl llklrkrhrk htqgraaals lstlaspgg sgtagtepsd
301 iiiplrtten nycphyekvs gdyghpvyiv qemppqspan iyykv
```

Ephrin B2 [Mus musculus].
ACCESSION AAH57009

Region amino acids 30-169

Variant amino acids 2-3 "AM" DELETED

```
1 mamarsrrds vwkycwglm vlcrtaisrs ivlepiywns snskflpggg lvlypqigdk
61 ldiicpkvds ktvgqeyyk vymvdkdqad rctikkentp llncarpdqd vkftikfgef
121 spnlwglefq knkdyiist sngslegldn qeggvcqtra mkilmkvqgd assagsarnh
181 gprrpelea gtngsrstts pfvknpgss tdgnsaghsq nllgseval fagiasgcii
241 fiviiitlv lllkyrrhr khspqhttl slstlatpkr ggngngseps dviiplrtad
301 svfcphyekv sgdyghpyi vqemppqspa niyykv
```

Ephrin B3 [Mus musculus].
ACCESSION AAH58617

Region amino acids 31-169

```
1 mgaphfgpgg vqvgallllg faglvsgls epvywnsank rfqaeggyvl ypqigdrldl
61 lcprarppgp hsspsyefyk lylvegaqgr rceappapnl lltcdrpdld lrftikfgef
121 spnlwghfr shhdyiat sdgtregles lqggvcltrg mkvllrvqgs prggavprkp
181 vsemperdr gaahsaepgr dtipgdpsn atsergaegpl ppsmpavag aaggmllll
241 gvagaggamc wrrrakpse srhpggsfg rgsglglgg ggmgpreaep gelgialrgg
301 gtadppfcph yekvsgdygh pyvivqdgpp qsppniyykv
```

FIG. 12

Ephrin-A1 [Homo sapiens]
ACCESSION P20827

Region amino acids 18-205

```
1 meflwapllg lccslaaadr htvfnwnssnp kfrnedytih vqlndyvdi cphyedhsva
61 daamegyily lveheeyqlc qpqskdqvrw qcnrpsakhg peklsekfqr ftpftlgkef
121 keghsyys kpihqhedrc lrlkvtvsgk ithspqahvn pqekrlaadd pevrvlhsig
181 hsaaprlfpl awtvlllpll llqtp
```

Ephrin-A2 [Homo sapiens]
ACCESSION NP_001396

Region amino acids 34-174

```
1 mapagrpllp llllllplpp ppfaraedaa ransdryavy wnrsnprfha gagddgggyt
61 vevsindyld iycphygapl ppaermehyv lymvngegha scdhrqrgfk rwecnrpaap
121 ggplkfsekf qlftpfslgf efrpgheyyy isatppnavd rpclrlkvvy rptnetlyea
181 pepiftsnns csspggcrlf lstipvlwtl lgs
```

Ephrin-A3 [Homo sapiens]
ACCESSION P52797

Region amino acids 23..238

Variant amino acids 71-74 "VGPG" DELETED

```
1 maaapl1111 llvpvpllp laqpgggalg nrhavywnss nqhlrregyt vqvnvndyld
61 iycphynssg vpggagpgpg ggaeqyvlym vsrngyrtcn asqgfkfwec nrphaphspi
121 kfsekfqrys afslgyefha gheyyyistp thnlhwkclr mkvfvccast shsgekpvt
181 lpqftmgpvn kinvledfeg enpqvpklek sigtspkre hlplavgiaf flmtflas
```

Ephrin A4 [Homo sapiens].
ACCESSION NP_005218

Region amino acids 24-155

```
1 mrlplllrtv lwaafllgspl rggsslrhvv ywnssnprll rgdavelgl ndyldivcph
61 yegpgppegp etfalyvmdw pgyescqaeq praykrwvcs lpfghvqfse kiqrftpfsl
121 gfeflpgety yyisvtpes sgqclrlqvs vcckerkses ahpvgsptes gtsgrwggdt
181 psplclllll lllilrllri l
```

Ephrin-A5 [Homo sapiens].
ACCESSION NP_001953

Region amino acids 28-164

variation amino acid 55 allele=N; allele=K

```
1 mlhvenltlv flvlwmcvfs qdpqskavad ryavywnssn prfqrgdyhi dvcindyldv
61 fcpheysvp edkteryvly mvnfdgysac dhtskgfkwr ecnrphspng plkfsekfql
121 ftpfslgfef rpgreyfyis saipdngrs clklkvfvrp tnscmktigv hdrvfdvndk
181 venslepadd tvhesaepsr genaaqtpri psrllaillf llaml1tl
```

FIG. 13

Ephrin-B1 [Homo sapiens]
ACCESSION NP_004420

Region amino acids 29-166
variation amino acid 172; allele=T; allele=M

```
1 marpgqrwlg kwlvamvwa lcrlatplak nlepvswwsl npkflsgkgl viypkigdkl
61 diicpraeag rpyeyyklyl vrpeqaaacs tvldpnlvt cnrpeqeirf tikfgefspn
121 ymglefkkhh dyitstnsng sleglenreg gvcrttrtki imkvgqdpna vtpeqlttsr
181 pskeadntvk matqapgsrg slgdsdgkhe tvnqeeksgp gasggssgdp dgffnskval
241 faavgagcvi flliiifltv lllklrkrhr khtqgraaal slstlaspkg gsgtagteps
301 diiiprltte nnycphyekv sgdyghpvyi vqemppqspa niyykv
```

Ephrin B2 [Homo sapiens].
ACCESSION NP_004084

Region amino acids 27-166
variation amino acid 76; allele=H; allele=Y

```
1 mavrrdsvwk ycwgvmlvlc rtaisksivl epiywssns kflpgqglvl ypqigdkldi
61 icpkvdsktv ggyeyykvyv vdkdqadrct ikkentplln cakpdqdikf tikfgefspn
121 lwglefqknk dyiiistsng slegldnqeg gvcqtramki lmkvgqdass agstrnkdpd
181 rrpeleagtn grssttsfv kpnpgsstg nsaghsgnni lgsevalfag iasgciifiv
241 iitlvvlll kyrrrhrkhs pqhtttls sltlatpkrsgn nngsepsdii iplrtadsvf
301 cphyekvsgd yghpvyivqe mppqspaniy ykv
```

Ephrin-B3 [Homo sapiens]
ACCESSION Q15768

Region amino acids 28-226

```
1 mgpphsqpgg vrvgaallllg vlglvsgls l epvywnsank rfqaeggyvl ypqigdrldl
61 lcprarppgp hsspnryefyk lylvggaqgr rceappapnl lltcdrpdld lrftikfey
121 spnlwghefr shhdyiiat sdgtregles lqggvcltrg mkvllrvqgs prggavprkp
181 vsemperdr gaahslepdk enlpgdptsn atsrgeagpl pppsmavag aagglallll
241 gvagaggamc wrrrrakpse srhpgpgsf gggslglggg ggmppreaep gelgialrgg
301 gaadppfcph yekvsgdygh pyvivqdggp qsppniyykv
```

FIG. 14

GST-EphA7-LBD; GST amino acids 1-231; EphA7 amino acids 232-410

MSPILGYWKI KGLVQPTRLL LEYLEEKYEE HLYERDEGDK WRNKKFELGL EFPNLPYYID
GDVKLTQSMA IIRYIADKHN MLGGCPKERA EISMLEGAVL DIRYGVSRIA YSKDFETLKV
DFLSKLPEML KMFEDRLCHK TYLNGDHVTH PDFMLYDALD VVLYMDPMCL DAFPKLVCFK
KRIEAIQID KYLKSSKYIA WPLQGWQATF GGGDHPPKSD LVPRGSPEFP GEVLLLDSKA
QQTELEWISS PPNGWEEISG LDENYTPIRT YQVCQVMEPN QNNWLRTNWI SKGNAQRIFV
ELKFTLRDCN SLPGVLGTCK ETFNLYYYET DYDTGRNIRE NLYVKIDTIA ADESFTQGDL
GERKMKLNT EREIGPLSKK GFYLAFAQDVG ACIALVSVKV YYKWCWSIIE LERPHRD

Mouse Ephrin-A2 exodomain

MAPAQRPLLP LLLLLLLPLRA RNEDPARANA DRYAVYWNRS NPRFQVSAVG DGGGYTVEVS
INDYLDIYCP HYGAPLPPAE RMERYILYMV NGEHGHASCDH RQRGFKRWEC NRPAAPGGPL
KFSEKQLFT PPSLGFEPFRP GHEYYYISAT PPNLVDRPCL RLKVYVRPTN ETLYEAPEPI
FTSN

Human-Ephrin-A2 exodomain

MAPAQAPLLP LLLLLLLPLPP PPFAPPEDRR RANSARYAVY WNRSNPRFHA GAGDDGGGYT
VEVSINDYLD IYCPHYGAPL PPAERMEHYV LYMVNNEGHA SCDHRQRGFK RWECNRPAAP
GGPLKFSEKF QLFTPFSLGF EFRPGHEYYY ISATPPNAVD RPCLRLKVYV RPTNETLYEA
PEPIFTSN

Mouse ephrin-B2 exodomain; Variant amino acids 2-3 "AM" DELETED

MAMARSRRDS VWKYCWGLLM VLCRTAISRS IVLEPIYWNS SNSKFLPGQG LVLYPQIGDK
LDIICPKVDS KTVGQYEEYK VYMVDKDQAD RCTIKKENTP LLNCARPDDQ VKFTIKFQEF
SPNLWGLEFQ KNKDYIIIST SNGSLEGLDN QEGGVCQTRA MKILMKVGQD ASSAGSARNH
GPTRRPELEA GTNGRSSTTS PFVKPNPGSS TDGNSAGHSG NNLLGSEVA

Human Ephrin-B2 exodomain

MAVRRDSVWK YCWGVLMLVC RTAISKSIVL EPIYWNSNS KFLPGQGLVL YPQIGDKLDI
ICPKVDSKTV GQYEEYKVYM VDKDQADRCT IKKENTPLLN CAKPDQDIKF TIKFQEFSPN
LWGLEFQKNK DYYIISTNSG SLEGLDNQEG GVCQTRAMKI LMKVGQDASS AGSTRNKDPT
RRPELEAGTN GRSSTTSFPV KPNPGSSTDG NSAGHSGNNI LGSEVA

Ig gamma-1 chain C region [Homo sapiens]
ACCESSION P01857

Variant amino acid 97 K -> R (IN G1M(3) MARKER)
Variant amino acid 239 D -> E (IN G1M(NON-1) MARKER)
Variant amino acid 241 L -> M (IN G1M(NON-1) MARKER)

1 astkgpsvfp lapsskstsg gtaalgclvk dyfpepvtvs wnsaltsgv htfpavlgss
61 glyslssvvt vpssslgtqt yicnvnhkps ntkvdckvcp kscdkthtcp pcpapellgg
121 psvflfpkp kdtlmisrtp evtcvvvdvs hedpevkfnw yvdgvevhna ktkpreeqyn
181 styrvsvlt vlhqdwlngk eykckvsnka lpapiektis kaggqprepq vytlppsrd
241 ltknqvsltc lvkgfypsdi avewesngqp ennykttppv ldsdgsffly skltvdksrw
301 qqgnvfscsv mhealhnhyt qkslsispkg